AUTHORS INDEX

Volume 29

Amundson, R. G. 129
Aulicino, F. A. 403

Bammeke, A. O. 51
Barbee, C. G. 321
Blevins, R. D. 361
Boisvert, J. 425
Bonadonna, L. 403
Breckle, S-W. 347
Brooks, C. 93
Brown, K. W. 1, 321

Cadle, S. H. 297
Callister, S. M. 453
Carlisle, S. M. 189
Chan, W. H. 373
Chung, D. H. S. 373

Dasch, J. M. 297
David, M. B. 415
Davol, P. 1
Donnelly, K. C. 1
Dupont, C. 425

Effler, S. W. 93

Farmer, C. T. 439
Findley, J. E. 57
Friedland, A. J. 233

Goulding, K. W. T. 25
Greene, J. C. 391

Hagemeyer, J. 347
Hartgerink, A. P. 113

Jeffries, D. S. 245
Jinghua, Wang 149
Johnson, A. H. 233

Kahle, H. 347
Keller, W. 285
Kelly, J. M. 219
Kelso, J. R. M. 245
Kull, T. P. 333

Lang, G. E. 309
Legge, A. H. 113, 129
Lipsit, J. H. 245
Lusis, M. A. 373

Maher, W. A. 77
Mayo, J. M. 113
McKay, G. 273
Merwin, E. 391
Miller, W. E. 391
Minns, C. K. 245
Mowli, P. P. 273

Pancorbo, O. D. 361
Paul, A. C. 261
Perkins, M. G. 93
Pickering, W. F. 205
Pillai, K. C. 261
Pitblado, J. R. 285
Poulton, P. R. 27

Rada, R. G. 57
Ramprasad, G. 273

Sarma, V. V. J. 15
Schlenker, F. S. 85
Scott, B. R. 1
Setiadi, T. 165
Siccama, T. G. 233
Song, C. J. 155
Sridhar, M. K. C. 51
Strickland, R. C. 219
Swamy, A. N. 15

Tang, A. J. S. 373
Thanabalasingam, P. 205
Thomas, J. C. 1
Thomas, V. H. 27
Trevors, J. T. 189

Vigneswaran, S. 155, 165
Volterra, L. 403
Von Gunten, H. R. 333

Wade, T. L. 439
Waisel, Y. 347
Walker, R. B. 129
Wieder, R. K. 309
Wiener, J. G. 57
Williams, R. J. B. 27
Winfrey, M. R. 453

SUBJECT INDEX

Volume 29

Acetylene reduction
 soil 189
Acid precipitation
 chloride 27
 lake chemistry 233
 N 27
 S 27
 stream chemistry 45
 throughfall pH 219
Al
 atmospheric deposition 373
 lake snow melt 245
 sphagnum peat 309
 stream chemistry 415
Arctostaphylos uva-ursi
 SO_2 effects 113
As
 fish 361
 MnO_2 interaction 205
 reservoir 149
 sorption by MnO_2 205
Atmospheric pollution
 boreal forest 113, 129
 chloride 27
 forest soil 347
 HC 439
 heavy metals 373
 lake 285
 N 27
 S 27

Bacteria
 aerobic 85
 waste treatment 85
Bazcillus thuringiensis
 toxicity 425
Boreal forest
 SO_2 effects 113, 129

Cd
 atmospheric depositions 373
 fish 361
 forest floor 233, 347
 marine organisms 77
Chloride
 acid precipitation 27
Cr
 reservoir 149
Crayfish
 Hg content 57
Cu
 fish 361
 forest floor 233
 lake 285
 marine organisms 177
 reservoir 149
Cyanide
 reservoir 149

Deep bed filtration
 sewage 155
Dyestuff
 adsorption 273

EDTA
 lake 391

F
 reservoir 149
Fecal streptococci
 measurement techniques 403
 sea water 403
Fe chemistry
 atmospheric deposition 373
 sphagnum peat 309
Filtration
 sewage 155
Fish
 heavy metal 361
 Hg content 57
Floccultation
 tests 165
Forest, boreal
 ecosystem 129
 SO_2 113
Forest floor
 atmospheric deposition 347
 heavy metals 233
 water relations 113
Forest microcosms
 acid precipitation effects 219

Glyphosate
 effects in soil 189
Groundwater
 chemical pollution 15
 heavy metals 333

HC
 atmospheric deposion 439
Herbicide
 effects in soil 189
Hg
 bioavailability 57

fish 361
reservoir 149
river 57, 453
Hypolimnetic DO depletion 93

Lake
eutrophication 391
hypolimnetic DO depletion 93
sulfide 93
Lake chemistry
acid precipitation 245, 285
snow melt effects 245
Larix laricina
SO_2 effects 113
Ladum groenlandicum
SO_2 effects 113

Marine organisms
metals 77
Metals, heavy
atmospheric deposition 373
fish 36
forest floor 233
lake 391
marine organisms 77
river 333
solid waste 51
Microbial methylation
river sediments 453
Mineral nutrition
boreal forest 129
Mn
atmospheric deposition 373
fish 361
Mn chemistry
sphagnum peat 309
MnO_2
retention of As 205

N
acid precipitation 27
lake 391
Ni
forest floor 233
lake 285
Nutrients
lake 391

Oxygen deficit
lake 93

P
lake 391
Pb
atmospheric deposition 373
fish 361
marine organisms 77
reservoir 149
Photosynthesis
boreal forest 129
Phytoplankton
lake 391
Picea mariana
SO_2 effects 113
Pine
jack 113
lodgepole 113
Pinus banksiana
SO_2 effects 113, 129
Pinus contorta
SO_2 effects 113, 129
Plant nutrients
pH effects 219

Ra
river sediment 261
Refinery waste 1
Reservoir
heavy metals 149
Respiration
Boreal forest 129
River
Hg content 57, 453
Ra 261
heavy metals 333
methylation 453

S
acid precipitation 27
effects on sphagnum peat 309
Sea water
fecal streptococci 403
Sediment
Hg content 57, 453
Ra 261
Selenastrum capricornutum
lake 391
Sewage
filtration 155
Snow melt
acidity 297
lake chemistry 245
SO_2
boreal forest 113
lake 285
Soil
acetylene reduction 189
denitrification 189
mutagenic activity of refinery waste 1
nitrification 189
xylene movement in soil 321
Solid waste
metal content 51

Sphagnum peat
 heavy metals input 309
 S input 309
 stream chemistry acid precipitation 415
Streptoccoci
 measurement techniques 403
Sulphate
 stream 415
Sulfide
 lake 93
Sulphur recovery gas plant 113, 129

Transpiration
 boreal forest 129

Waste
 dyestuff 273
 refinery 1
 solid 51
Waste treatment
 bacteria 85
Water
 chemical pollution 15
Water relations
 boreal forest 129
Water quality
 heavy metals 149
 lake 285

Xylem pressure potential
 boreal forest 113
 soil movement 321

Zn
 atmospheric deposition 373
 fish 361
 forest floor 233
 marine organisms 77
 reservoir 149

TABLE OF CONTENTS

Volume 29 — 1986

AMUNDSON, R. G., R. B. WALKER, and A. H. LEGGE / Sulphur Gas Emissions in the Boreal Forest: The West Whitecourt Case Study VII: Pine Tree Physiology 129

AULICINO, FRANCESCA ANNA, *see* Volterra, Laura *et al.*

BAMMEKE, A. O., *see* Sridhar, M. K. C.

BARBEE, G. C. and K. W. BROWN / Movement of Xylene Through Unsaturated Soils Following Simulated Spills 321

BLEVINS, R. DEAN and OSCAR D. PANCORBO / Metal Concentrations in Muscle of Fish from Aquatic Systems in East Tennessee, U.S.A. 361

BOISVERT, J., *see* Dupont, C.

BONADONNA, LUCIA, *see* Volterra, Laura *et al.*

BECKLE, SIEGMAR-W., *see* Hagemeyer, Jürgen *et al.*

BROOKS, CAROL, *see* Effler, Steven W. *et al.*

BROWN, K. W., K. C. DONNELLY, J. C. THOMAS, P. DAVOL, and B. R. SCOTT / Mutagenic Activity of Soils Amended with Two Refinery Wastes 1

BROWN, K. W., *see* Barbee, G. C.

CADLE, STEVEN H., *see* Dasch, Jean Muhlbaier

CALLISTER, STEVEN M. and MICHAEL R. WINFREY / Microbial Methylation of Mercury in Upper Wisconsin River Sediments 453

CARISLE, SARA M. and JACK T. TREVORS / Effects of the Herbicide Glyphosate on Nitrification, Denitrification, and Acetylene Reduction in Soil 189

CHAN, WALTER H., AL J. S. TANG, DAVID H. S. CHUNG, and MARIS A. LUSIS / Concentration and Deposition of Trace Metals in Ontario – 1982 373

CHUNG, DAVID H. S., *see* Chan, Walter H. *et al.*

DASCH, JEAN MUHLBAIER and STEVEN H. CADLE / Dry Deposition to Snow in an Urban Area 297

DAVOL, J. C. THOMAS, P., *see* Brown, K. W. *et al.*

DAVID, MARK B. / Chemistry Differences in Two Streams Entering an Acidic Lake in the Adirondack Mountains, New York (U.S.A.) 415

DONNELLY, K. C., *see* Brown, K. W. *et al.*

DUPONT, C. and J. BOISVERT / Persistence of *Bacillus thuringiensis* serovar. *israelensis* Toxic Activity in the Environment and Interaction with Natural Substrates 425

EFFLER, STEVEN W., MARY GAIL PERKINS, and CAROL BROOKS / The Oxygen Resources of the Hypolinmion of Lonically Enriched Onodaga Lake, NY, U.S.A. 93

FARMER, CHARLES T. and TERRY L. WADE / Relationship of Ambient Atmospheric Hydrocarbon (C_{12}-C_{32}) Concentrations to Deposition 439

FINDLEY, JOHN E., *see* Rada, Ronald G. *et al.*
FRIEDLAND, ANDREW J., ARTHUR H. JOHNSON, and THOMAS G. SICCAMA / Zinc, Cu, Ni and Cd in the Forest Floor in the Northeastern United States 233
GOULDING, KEITH W. T., PAUL R. POULTON, VICTOR H. THOMAS, and RODNEY J. B. WILLIAMS / Atmospheric Deposition at Rothamsted, Saxmundham, and Woburg Experimental Stations, England, 1969–1984 27
GREENE, JOSEPH C., W. E. MILLER, and ELLEN MERWIN / The Effect of Secondary Effluents on Eutrophication in Las Vegas Bay, Lake Mead, Nevada 391
HAGEMEYER, JÜRGEN, HENNING KAHLE, SIEGMAR-W. BRECKLE, and YOAV WAISEL / Cadmium in *Fagus sylvatica* L. Trees and Seedlings: Leaching, uptake and Interconnection with Transpiration 347
HARTGERINK, A. P., *see* Mayo, J. M. *et al.*
JEFFRIES, D. S., *see* Kelso, J. R. M. *et al.*
JINGHUA, WANG / Water Quality in Guanting Reservoir 149
JOHNSON, ARTHUR H., *see* Friedland, Andrew J. *et al.*
KAHLE, HENNING, *see* Hagemeyer, Jürgen *et al.*
KELLER, W. and J. ROGER PITBLADO / Water Quality Changes in Sudbury Area Lakes: A Comparison of Synoptic Surveys in 1974–1976 and 1981–1983 285
KELLY, J. M. and R. C. STRICKLAND / Throughfall and Plant Nutrient Concentration Response to Simulated Acid Rain Treatment 219
KELSO, J. R. M., C. K. MINNS, J. H. LIPSIT, and D. S. JEFFRIES / Headwater Lake Chemistry During the Spring Freshet in North-Central Ontario 245
KULL, THOMAS P., *see* Von Gunten, Hans R.
LANG, GERALD E., *see* Wieder, R. Kelman
LEGGE, A. H., *see* Mayo, J. M. *et al.*
LEGGE, A. H., *see* Amundson, R. G. *et al.*
LIPSET, J. H., *see* Kelso, J. R. M. *et al.*
LUSIS, MARIS A., *see* Chan, Walter H. *et al.*
MAHER, W. A. / Trace Metal Concentrations in Marine Organisms from St. Vincent Gulf, South Australia 77
MAYO, J. M., A. P. HARTGERINK, and A. H. LEGGE / Sulphur Gas Emissions in the Boreal Forest: The West Whitecourt Case Study VI: Woody Plant Water Status 113
McKAY, G., G. RAMPRASAD, and P. PRATAPA MOWLI / Equilibrium Studies for the Adsorption of Dyestuffs from Aqueous Solutions by Low-Cost Materials 273
MERWIN, ELLEN, *see* Greene, Joseph G. *et al.*
MILLER, W. E., *see* Greene, Joseph G. *et al.*
MINNS, C. K., *see* Kelso, J. R. M. *et al.*
MOWLI, P. PRATAPA, *see* McKay, G. *et al.*
PANCORBO, OSCAR D., *see* Blevins, R. Dean

PAUL, A. C. and K. C. PILLAI / Distribution and Transport of Radium in a Tropical River 261
PERKINS, MARY GAIL, *see* Effler, Steven W. *et al.*
PICKING, W. F., *see* Thanabalasingam, P.
PILLAI, K. C., *see* Paul, A. C.
PITBLADO, J. ROGER, *see* Keller, W.
POULTON, PAUL R., *see* Goulding, Keith W. T. *et al.*
RADA, RONALD G., JOHN E. FINDLEY, and JAMES G. WIENER / Environmental Fate of Mercury Discharged into the Upper Wisconsin River 57
RAMPRASAD, G., *see* McKay, G. *et al.*
SARMA, V. V. JAGANNADHA and A. NARAYANA SWAMY / Delineation of Chemically Polluted Groundwater Regions in Visakhapatnam Basin, India 15
SCHLENKER, FRANK S. / Secondary Waste Treatment: Aerobic Bacterial Activity, Initial and Residual Phases 85
SCOTT, B. R., *see* Brown, K. W. *et al.*
SETIADI, T., *see* Vigneswaran, S.
SICCAMA, THOMAS G., *see* Friedland, Andrew J. *et al.*
SONG, CHANG JING, *see* Vigneswaran, S.
SRIDHAR, M. K. C. and A. O. BAMMEKE / Heavy Metal Contents of some Solid Wastes in Ibadan, Nigeria 51
STRICKLAND, R. C., *see* Kelly, J. M.
SWAMY, A. NARAYANA, *see* Jagannadha, V. V.
TANG, AL J. S., *see* Chan, Walter H. *et al.*
THANABALASINGAM, P. and W. F. PICKING / Effect of pH on Interaction Between As(III) or As(V) and Managese (IV) Oxide 205
THOMAS, J. C., *see* Brown, K. W. *et al.*
THOMAS, VICTOR H., *see* Goulding, Keith W. T. *et al.*
TREVORS, JACK. T., *see* Carlisle, Sara M.
VIGNESWARAN, S. and T. SETIADI / Flocculation Study on Spiral Flocculator 155
VIGNESWARAN, S. and CHANG JING SONG / Mathematical Modelling of the Entire Cycle of Deep Bed Filtration 165
VOLTERRA, LAURA, LUCIA BONADONNA, and FRANCESCA ANNA AULICINO / Fecal Streptococci Recoveries in Different Marine Areas 403
VON GUNTEN, HANS R. and THOMAS P. KULL / Infiltration of Inorganic Compounds from the Glatt River, Switzerland, into a Groundwater Aquifer 333
WADE, TERRY L., *see* Farmer, Charles T.
WAISEL, YOAV, *see* Hagemeyer, Jürgen *et al.*
WALKER, R. B., *see* Amundson, R. G. *et al.*
WIEDER, R. KELMAN and GERALD E. LANG / Fe, Al, Mn, and S Chemistry of *Spagnum* Peat in Four Peatlands with Different Metal and Sulfur Input 309
WIENER, JAMES G.D., *see* Rada, Ronald G. *et al.*

WILLIAMS, J. B., *see* Goulding, Keith W. T. *et al.*
WINFREY, MICHAEL R., *see* Callister, Steven M.

Book Review
A. Bruce (ed.), *Sewage Sludge Stablization and Disinfection*
(T. VIRARAGHAVAN) 217

Author Index to Volume 28 109

Subject Index to Volume 28 110

Author Index to Volume 29 467

Subject Index to Volume 29 468